

Title (en)  
POWER SUPPLY CIRCUIT, CONTROLLING METHOD AND ELECTRIC EQUIPMENT

Title (de)  
LEISTUNGSVERSORGUNGSSCHALTUNG, STEUERUNGSVERFAHREN UND ELEKTRONISCHE AUSRÜSTUNG

Title (fr)  
CIRCUIT D'ALIMENTATION ÉLECTRIQUE, PROCÉDÉ DE COMMANDE ET ÉQUIPEMENT ÉLECTRIQUE

Publication  
**EP 3799674 B1 20230104 (EN)**

Application  
**EP 18926262 A 20180713**

Priority  
CN 2018095617 W 20180713

Abstract (en)  
[origin: WO2020010609A1] A power supply circuit, a controlling method and an electric equipment are provided. The power supply circuit includes : a voltage convertor circuit, configured to convert an input voltage into an output voltage, the voltage convertor circuit having a primary side and a secondary side, the primary side having at least one switch unit which controls the primary side to rectify the input voltage, the secondary side having at least two rectifying diodes, which being used to rectify voltage coupled from the primary side; a controller, configured to generate a controlling signal to control the switch unit; and a voltage generator, configured to be coupled to the primary side, being used to generate a voltage, and provide the voltage to a power supply terminal of the controller, when the at least two rectifying diodes being normal, the voltage provided to the controller being an operating voltage of the controller, and the controller generates the controlling signal by being provided with the operating voltage; when one of the at least two rectifying diodes being open, the voltage provided to the controller being shutdown voltage, and the controller stops generating the controlling signal by being provided with the shutdown voltage. Therefore, the rectifying diode will not get hot, the cost is low and the reliability is high.

IPC 8 full level  
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CPC (source: EP)  
**H02H 7/1213** (2013.01); **H02M 3/3376** (2013.01); **H02M 1/0006** (2021.05); **H02M 1/32** (2013.01); **H02M 1/327** (2021.05)

Citation (examination)  
• SU 1056392 A1 19831123 - KOROTKIKH VIKTOR V, et al  
• US 2016164425 A1 20160609 - CHEN JIAN [JP]

Designated contracting state (EPC)  
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DOCDB simple family (publication)  
**WO 2020010609 A1 20200116**; CN 112119578 A 20201222; CN 112119578 B 20240206; EP 3799674 A1 20210407; EP 3799674 A4 20220126; EP 3799674 B1 20230104

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**CN 2018095617 W 20180713**; CN 201880093377 A 20180713; EP 18926262 A 20180713